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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,569	07/02/2003	Peter Traneus Anderson	129137NV (14291US01)	2431

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EXAMINER

HOLLOWAY III, EDWIN C

ART UNIT	PAPER NUMBER
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2612

DATE MAILED: 08/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

8

<b>Office Action Summary</b>	<b>Application No.</b> 10/612,569	<b>Applicant(s)</b> ANDERSON, PETER TRANEUS	
	<b>Examiner</b> Edwin C. Holloway, III	<b>Art Unit</b> 2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 June 2006.  
 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 and 10-34 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 1-8 and 10-34 is/are rejected.  
 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☐ All b) ☐ Some \* c) ☐ None of:  
 1. ☐ Certified copies of the priority documents have been received.  
 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
 \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**EXAMINER'S RESPONSE**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6-12-06 has been entered. The examiner has considered the new presentation of claims and applicant's arguments in view of the disclosure and the present state of the prior art. And it is the examiner's opinion that the claims are unpatentable for the reasons set forth in this Office action:

***Claim Rejections - 35 USC § 102 & 103***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 13-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Stephen (US 4302846).

Regarding claims 13-14, Stephen discloses a marker tag with coil L around a core and connected to diode 244 and capacitor C for transmitting a signal. See fig. 4A and col. 6 lines 58-68. A tracking system tracking position of the tag is provided by the detection of relative location or position that is indicated

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by multiple indicators 102-110 in col. 8 lines 45-61 in addition to alarm warding device 92 in col. 8 lines 1-8. Although the term "tracking" is not used, the multiple indicators track position as is evident from col. 9 line 26 reciting that the receiver indicates a change in tag position and can determine with accuracy not only the position of the tag, but the exact moment the tag is in the doorway. Further, multiple different zones are discussed in col. 9 line 40. The non-linear rectifying device 21/244 connected to coil 20/L introduces non-linear characteristics into the response signal col. 2 line 35 - col. 3 line 5 to allow the tracking system to distinguish the response signal from the excitation signal (col. 3 lines 6-27). This also enables the tracking system to determine one of position and orientation of the transponder based at least in part on the response signal by providing position indication by indicators 112-120 is in addition to an alarm by warning device 92 in at least col. 3 lines 42-52.

4. Claims 1-2, 8, 15-18 and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herman (US 4670740) in combination with Stephen (US 4302846).

Regarding claims 1-2, 8, 15-18 and 28-29, Herman discloses a transponder tag used in a surveillance or tracking system with a diode D1 in parallel with a coil L for receiving a first

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wireless electromagnetic signal at a first frequency and transmitting a second signal at a second frequency to identify the tag. See at least fig. 1 and the abstract. Herman does not disclose tracking position.

Stephen was discussed above.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included in Herman the position tracking of Stephen in order to indicate relative position of the tag in the zone, indicate when the tag passes through a doorway and/or monitor plural zones for increased security and/or more accurate detection.

5. Claims 1-3, 5, 7-8, 10-12, 15-29 and 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Augenblick (US 3789642) in combination with Carney (US 5446447) and Stephen (US 4302846).

Augenblick discloses a transponder or target 24 used in a recognition or tracking system (col. 1 lines 50-55) with a diode 28 in parallel with a capacitor 34 and a coil 36 for receiving a first wireless electromagnetic signal at a first frequency and transmitting a second signal at one or more second frequencies. See at least fig. 1 and col. 2 line 58 - col. 3 line 62. Regarding claim 18, the transponder is identified by the response signal. Switches to vary the reactance including the

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capacitance and change the second frequency are included in col. 4 lines 40-51. An antenna 26 is included, but coil for the antenna is not specified.

Carney discloses an analogous art tag system with coil antenna 24 in parallel with tuning devices including capacitors 26-32 and switching diodes 42-48 controlled by controller 36 in fig. 1. Antenna 24 receives one or more first frequencies from a reader and transmits one or more second frequencies selected by the switching. The switching varies reactance or capacitance to vary the resonance frequency. A single varactor diode may be provided as in fig. 16 or separate switches in fig. 18. The See at least cols. 5-6.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included in Augenblick the coil antenna that Carney discloses is well known in such devices for receiving power and providing a response in a passive tag. It further would have been obvious to have included the controller and plural frequency selection circuits of Carney in view of the switches in figs. 10-11 of Augenblick for selecting a code in a similar manner.

Stephen was discussed above.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included in the

combination applied above the position tracking of Stephen in order to indicate relative position of the tag in the zone, indicate when the tag passes through a doorway and/or monitor plural zones for increased security and/or more accurate detection. The combination is suggested by Augenblick referring to tracking in col. 1 lines 51-55.

6. Claims 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Augenblick (US 3789642) in combination with Carney (US 5446447) and Stephen (US 4302846) as applied above and further in view of Murdoch '583 (US 5153583).

Murdoch '583 discloses a transponder with a synchronous rectifier in cols. 11 and 14 to provide simple and readily integrated rectification. A transistor for modulation switching in the integrated circuit is provided in fig. 4.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included in the combination applied above the synchronous rectifier and/or the transistor of Murdoch '583 to allow integrated circuit rectification/switching.

7. Claims 4, 6 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Augenblick (US 3789642) in combination with Carney (US 5446447) and Stephen (US 4302846) as applied above and further in view of Walton (US 4918416).

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Walton discloses a transponder with a transistor switches 30 and 31 in series with diodes 25 and 25 to change reactance of the transponder and provide modulation of a response signal with low power drain. See at least fig. 1 and cols. 2-3.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included in the combination applied above at least one transistor switch in series with a diode as disclosed in Walton for low power drain.

#### ***Response to Arguments***

8. Applicant's arguments filed 6-12-06 have been fully considered but they are not persuasive.

Initially it is noted that the arguments refer to claims 1-34, but claim 9 has been canceled. Only claims 1-8 and 10-34 are pending.

Applicant argues that the 102 rejection of claims 13-14 under 102(b) as anticipated by Stephen is improper because Stephen only triggers a warning device that does not require exact determination of position and orientation. This argument is not persuasive because Stephen includes a warning device 92 to provide an alarm based on the sum of the frequencies transmitted by the tag and Stephen also included five position indicators (102-110) that indicate the position of the tag by comparison of the relative signal strengths of the signals to



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monitor or track position. See col. 3 lines 45-56 and col. 8 line 45 - col. 9 line 31. The argument that Stephen lacks exact determination of position and orientation is not persuasive because the claims only include the capability of determining "one of position and orientation" and the specification lacks an adequate and/or enabling disclosure of any structure or steps to determine exact position and orientation. The argument that Stephen determines only the relative position of the boundary of the zone judged by the warning indicator is not persuasive for the reasons stated above and because "relative" position is not excluded by applicant's claims or specification. The argument that Stephen determines only approximate position is not persuasive because "approximate" position is not excluded by applicant's claims or specification.

The argument that the claims are not anticipated by Herman is moot because Herman is applied under 103 in combination with Stephen.

The arguments that 103 rejections are improper because all the applied references are direct to presence detection systems is not persuasive because the reference are combined with Stephen in the rejections to teach position tracking in addition to presence detection as discussed above. Further, Augenblick discloses tracking a target in col. 1 lines 55-55 that at least

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suggest position tracking.

### **Conclusion**

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Welsh (US 4063229), Kip '418 (US 4196418) and Kip '530 (US 4308530) discloses tags with nonlinear element. Hansen (US 4642786) and Gilboa (US 6380732B1) discloses systems for tracking position and orientation. Arndt (US006097189A) discloses a system tracking position of target including a nonlinear load/diode.

### **CONTACT INFORMATION**

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact an Electronic Business Center (EBC) representatives at 571-272-4100 or toll free at 1-866-217-9197 between the hours of 6 a.m. and midnight Monday through Friday EST, or by e-mail at [ebc@uspto.gov](mailto:ebc@uspto.gov). The Patent EBC is a complete customer service center that supports all Patent e-business products and service applications. Additional information is available on the Patent EBC Web site at <http://www.uspto.gov/ebc/index.html>.

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transmissions must be sent to the Central FAX number, unless an exception applies. For example, if the examiner has rejected claims in a regular U.S. patent application, and the reply to the examiner's Office action is desired to be transmitted by facsimile rather than mailed, the reply must be sent to the Central FAX Number. Inquiries concerning only hours and location of the Customer Window may be directed to OIPE Customer Service at (571) 272-4000

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edwin C. Holloway, III whose telephone number is (571) 272-3058. The examiner can normally be reached on M-F (8:30-5:00). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on (571) 272-7308.

EH  
8/14/06

  
EDWIN C. HOLLOWAY, III  
PRIMARY EXAMINER  
ART UNIT 2612